

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 22 AND AND HARFORD COUNTY COMMUNITY COLLEGE ACCESS IN HARFORD COUNTY. MD 22 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH A EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR E.B. MD 22.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH PHONE DROP, ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER, AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

SPECIAL NOTES

1. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SYNDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.
2. UPON STARTING THIS PROJECT, THE CONTRACTOR SHALL NOTIFY SUSAN HEPBURN OF VERISON AT (410) 393-6379 TO ARRANGE FOR THE PHONE LINE RELOCATION

PHASING CHART

	1	2	3	4	5	6	7	
PHASE 1 & 6	G	G	G	R	R	R	R	
1 & 6 CHANGE	G	G	G	R	R	R	R	
PHASE 2 & 6	G	G	G	G	G	R	R	
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	
PHASE 4	R	R	R	R	R	G	G	
4 CHANGE	R	R	R	R	R	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	

EQUIPMENT LIST "B" CONTINUED

ITEM NO.	QUANTITY	DESCRIPTION
5008	1355 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKING - ANY WIDTH
8001	2 EA	FURNISH AND INSTALL 250 FT. VIDEO CABLE TO CONTROLLER
8006	2 EA	CUT, CLEAN, AND CAP TRAFFIC SIGNAL STRUCTURE
8011	22 EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8013	1 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM FOR SIGNAL POLE
8014	1 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINAIRE
8019	3 EA	FURNISH AND INSTALL 8 IN. VEHICULAR SIGNAL HEAD SECTION
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8029	2 EA	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8030	1 EA	FURNISH AND INSTALL PEDESTAL POLE ANY SIZE
8035	1 EA	FURNISH AND INSTALL 50 FT./70 FT. TWIN MAST ARMS AND POLE
8049	2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
8050	1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
8051	620 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8053	40 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8057	8 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8058	80 LF	FURNISH AND INSTALL 4 IN. X 4 IN. WOOD SUPPORT
8060	150 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
8064	70 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8067	70 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - SLOTTED
8068	10 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT, FLEXIBLE, NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8070	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO.4 AWG
8072	7 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8080	3 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
8084	70 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG
8085	600 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO. 14 AWG
8086	185 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 12 AWG
8088	150 LF	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR
8093	1 EA	FURNISH AND INSTALL CONTROLLER AND CABINET BASE MOUNT
---	1 EA	FURNISH AND INSTALL 4-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
---	1 EA	FURNISH AND INSTALL R10-12 SIGN (36" X 42") MAST ARM MOUNT
---	1 EA	FURNISH AND INSTALL M95-1 SIGN (78" X 24") MAST ARM MOUNT
---	2 EA	FURNISH AND INSTALL W3-3 SIGN (36" X 36"), "NEW" PANEL SIGN (30" X 30") AND FLAGS
---	1 EA	FURNISH AND INSTALL R3-5(R) SIGN (30" X 36") MAST ARM MOUNT
---	2 EA	FURNISH AND INSTALL R3-7(R) SIGN (30" X 30") GROUND MOUNT

EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 321-2781	MR. STEVE MARCISZEWSKI ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 321-2761
MS. SUENETTE POPE ASSISTANT DISTRICT ENGINEER - UTILITIES (410) 321-2841	

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676
MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7631	MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7668
MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652	

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR
ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

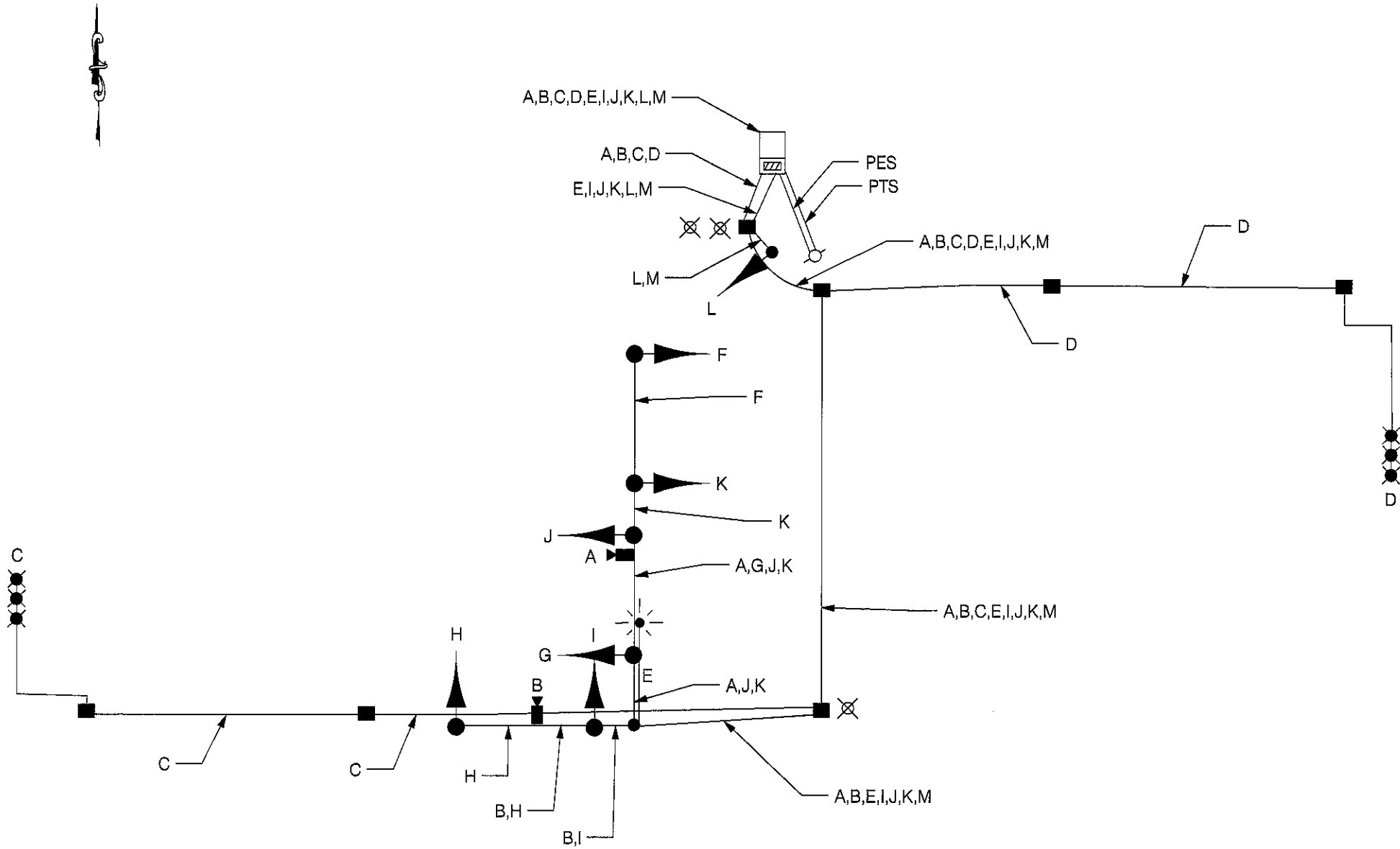
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	3 EA	TEST PIT EXCAVATION
5001	2 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT ARROW
5002	4 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT LETTER
5003	1 EA	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
5005	75 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
5006	585 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
5007	280 LF	FURNISH AND INSTALL 5 IN. YELLOW HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.
THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		
ALL SIGNAL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR		

WIRING DIAGRAM



WIRING KEY

A-B	VIDEO DETECTION 250 FT. PREMANUFACTURED CABLE
C-D	MICRO-LOOP PROBE
E	2 CONDUCTOR ELECTRICAL CABLE (NO.12 A.W.G.)
F-H	5 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
I-L	7 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
M	STRANDED BARE COPPER GROUND WIRE (NO.6 A.W.G.)
ML	MICRO-LOOP PROBE
PES	PROPOSED ELECTRICAL SERVICE
PTS	PROPOSED TELEPHONE SERVICE
X	GROUND ROD

TRAFFIC**C**ONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101

FAX (410) 923-6473
EMAIL TRACONCEPT@AOL.COM

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION
MD 22 AT HARFORD COUNTY COMMUNITY COLLEGE ACCESS

DRAWN BY: M.HOWELL	F.A.P. NO. 4324 GI	TS NO.	SHEET NO. 3 OF 3
CHECKED BY: T.ZAYDEL	S.H.A. NO.	T.I.M.S. NO.	
SCALE: NONE	COUNTY: HARFORD	G-217	
DATE: 2-19-04	LOG MILE: I2002204.01		